

Read and follow these safety instructions first



1. Safety instructions

- 1.1 Installation, mounting (fix into hoses), putting into operation, maintenance, removal and repair may be carried out by qualified experienced specialists with knowledge in pressurized piping construction only.
- 1.2 The statutory and other applicable regulations and standards have to be noticed and kept.
- 1.3 The pressure of maximum 10 bar, temperature of maximum +120 °C, the instructions of the
> EU-Declaration of conformity EUKE-DG-K100
and – if a limit switch is mounted – the instructions of the
> Appliance information KE-GI-... resp. the technical datas of the KE-TD-..
have to be noticed and kept.
- 1.4 Putting into operation and pressure admission only
- after correct building-in of the hose coupling into the delivery hose
 - after correct mounting of the coupling with thread at the tube (threaded connection) and if need by fixation with the locating screw
 - with closed coupling connection
- !!! Before pressurize the tubing make sure that the couplings are correct inserted resp. connected and
- with Storz-couplings
- is pulled to the limit stop
- with couplings according to DIN 28 450
- the clamping ring is tightened firmly and the safety lever is folded down
- with KAMLOK – couplings
- both levers are turned down to the coupling
- 1.5 **Disconnect resp. open the coupling connection only when pressure-free.**



ATTENTION ! Danger of injuries

- If loosened and opened in pressurized condition the blank coupling, blank cap resp. closing cover or closing plug will accelerate like a bullet and may cause serious injuries and damages.
- If loosened in pressurized condition the hose will lay about one and may cause serious injuries.

- !!! Before loosen resp. open the coupling connection make sure that the tubing is pressure-free.

Depending on over pressure and hose diameter place suitable warning information.

e.g. **“Loosen only in pressure-free condition”**

- 1.6 If one of the coupling elements is damaged the pressurizing has to be shut off immediately and the tubing resp. hose line is to relieve from any pressure.
- 1.7 Elements of the coupling should be removed or demounted only in pressure-free condition.
- ▶ !!! For couplings with build-in limit switch take also notice of the safety instructions on the back.

Read and follow these special conditions and safety instructions



2. General safety instructions

- 2.1 The installation, maintenance, initial operation, removal and repair have to be controlled resp. checked by an “authorized person” for explosion protection.
- 2.2 Comply with the requirements of DIN EN 60079-14, DIN EN 60079-17 and DIN EN 1127-1, especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.



3. Safety Instructions **Gas+Dust** and **hybrid mixtures** for the application of couplings in explosive hazardous areas.

- 3.1 The couplings are allowed to be mounted on tubing
 - when the internal is classified as zone 0 or zone 20 resp. zone 0+20 (hybrid mixtures) or lower
 - when the external area is classified as zone 1 or zone 21 resp. zone 1+21 (hybrid mixtures) or lower
- !!! By attached electrical devices – e.g. limit switches or RFID – systems to recognize the connection – the couplings has to be mounted in the external area just in that zone the electrical devices are classified for.
- 3.2 The coupling has to be constantly conductible connected to the electrically conductive, earthed tubing.
 - If the tubing is not electrically conductive the coupling has to be earthed.
- 3.3 If combustible gases and vapours or combustible dusts with a minimum ignition energy under 3 mJ or a minimum ignition temperature under +300 °C (BAM assessment) were carried inside the coupling resp. by an appliance within zone 0 and/or zone 20 only the stainless steel variants of the product touching parts are permissible.



4. Safety Instructions for the application of limit switches in explosive hazardous areas.

- 4.1 Comply with the electrical connection take notice of the local and statutory rules and regulations and/or the VDE 0100.
- 4.2 Before electrical connection, compare the supply voltage with the details at the data plate.

for the version KE and KI Option B0 **Dust** 

- 4.3 The limit switches can be used in areas classified as zone 22.
- 4.4 A fuse (with max. 4 A) has to be connected in series to the supply voltage.
- 4.5 Protect the signal contacts of the limit switch KE against voltage peaks when inductive loads are connected.

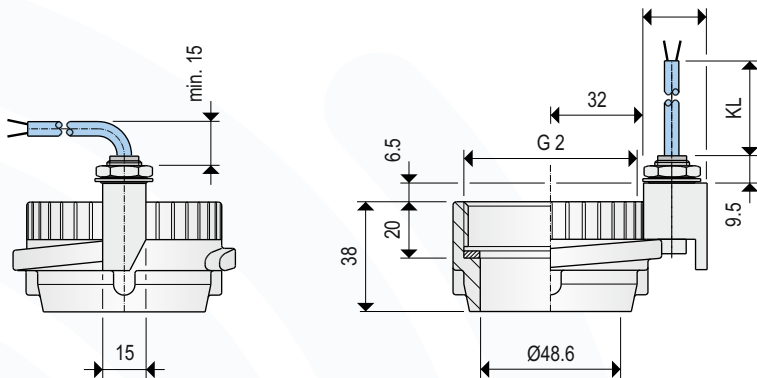
for the version KN **Gas+Dust** 

- 4.6 The limit switches can be used in areas classified as zone 1 and zone 20 or lower.
- 4.7 To keep the intrinsically reliability a certified barrier or a certified isolation amplifier with an intrinsically safe circuit according to the present category has to be connected in series for power limitation.



Appliance information

Dimensions



007-0213

Order code

Type	NG	G	W	KL
KN - VK 050 IG2 MS 2				
KN - VK 050 IG2 VA 2				

NG = Nominal size
G = Thread
W = Material
KL = Cable length

According to Directive 2014/68/EU for pressure equipment:

Usable for hazardous gases and liquids of group 1 up to 10 bar and up to DN 100

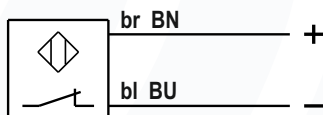
For example in pneumatic conveyor systems with combustible dusts etc.

Result of the evaluation of ignition danger acc. to DIN EN ISO 80079-36:

The couplings (without switches) have no potential source of ignition on their own.

Wiring connection

Cable 2 x 0.34 mm²
Cable length (KL) 2 = 2 m
5 = 5 m
0 = 10 m



Pepperl+Fuchs NJ4

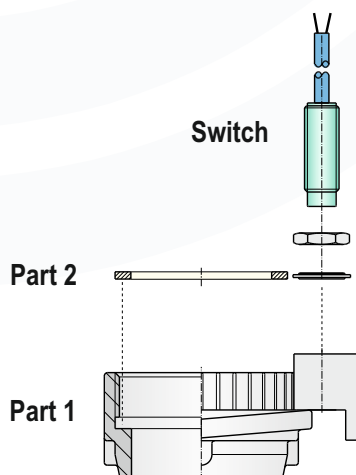
007-AP03

Technical data

Materials	(W)	MS = Brass VA = 1.4408 / 316
Switch		PBTP (Polybutylenterephthalat)
Mounting position		any
Ambient temperature		-25 °C ... +60 °C
Nominal voltage		8 V DC (Ri approx. 1 kΩ)
Power consumption		activated: ≤ 1 mA not activated: ≥ 3 mA
Type of protection		IP68/IP65 acc. to DIN EN 60529
Maintenance		none

ATEX-Option Gas and Dust  II 2G Ex ia IIC T6...T1 Gb
and II 1D Ex ia IIIC T₂₀₀ 135°C Da

Components



Order code switch

Switch
KN - NJ4K - M12 - 2
KN - NJ4K - M12 - 5
KN - NJ4K - M12 - 0

Order code Part 1

NG	G	W
K - FVK 050 IG2 MS E		
K - FVK 050 IG3 VA E		

inkl. seal ring

Order code Part 2

Seal ring	Material
K-TWIG2DRG-PU	Polyurethan, blue
K-TWIG2DRG-PT	PTFE, white

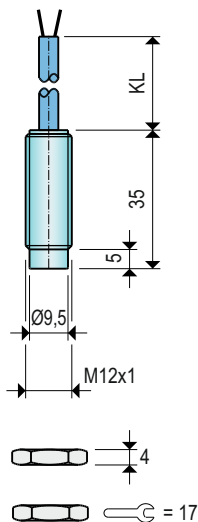
NG = Nominal size
G = Thread
W = Material

Technical data

Dimensions

KN-NJ4K-M12- .

Brand Pepperl+Fuchs
Type NJ4-12GK-N



007-0253

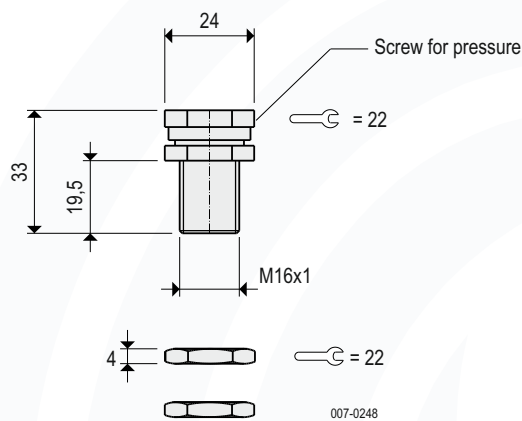
Order code

KN-NJ4K-M12-2 for 2 m cable
KN-NJ4K-M12-5 for 5 m cable
KN-NJ4K-M12-0 for 10 m cable

further technical data you can get under
www.pepperl-fuchs.de

Clamp mounting K-KH-12-2S

Brand BALLUFF
Type KH-12-2S



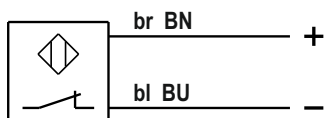
Order code

K-KH-12-2S

further technical data you can get under
www.balluff.de

Wiring connection

Cable 2 x 0.34 mm²
Cable length (KL) 2 = 2 m
5 = 5 m
0 = 10 m



Pepperl+Fuchs NJ2

007-AP03

Technical data

Materials switch PBTP (Polybutylenterephthalat)
clamp mounting AlMgSi1
Mounting position any
Ambient temperature -25 °C ... +60 °C
Nominal voltage 8 V DC (Ri approx. 1 kΩ)
Power consumption activated: ≤ 1 mA
not activated: ≥ 3 mA
Type of protection **IP68/IP65** acc. DIN EN 60529
Maintenance none

ATEX option **Gas** and **Staub** **Ex** II 2G Ex ia IIC T6...T1 Gb
and II 1D Ex ia IIIC T₂₀₀ 135°C Da



EU-Konformitätserklärung EU-Declaration of Conformity

Wir/We

MOLLET Füllstandtechnik GmbH

Industriepark RIO 103
D-74706 Osterburken
Tel. 06291 64400 Fax 06291 9846

erklären hiermit, dass die Geräte:

declare that the devices:

Schlauch-Kupplungen mit den elektrischen Betriebsmitteln:
Endschalter, Codeträger, Lesekopf, Lesestation, Expanderkarte
der Typenreihe:

Hose couplings with the electrical equipment:
limit switch, code carrier, read head, read station,
processor unit, expander card of type:

KE ... , KI ... , KN ... ,

KE ... , KI ... , KN ... ,

auf die sich diese Erklärung bezieht, den folgenden Normen
oder normativen Dokumenten entsprechen:

to which this declaration relates is in accordance with
the following standards or other normative documents:

Richtlinie 2014/35/EU (NSR-Richtlinie)
Richtlinie 2014/30/EU (EMV-Richtlinie)

Directive 2014/35/EU (Directive LVD)
Directive 2014/30/EU (Directive EMC)

und

and

DIN EN 61010-1:2020
DIN EN 60529:2014

DIN EN 61010-1:2020
DIN EN 60529:2014

DIN EN IEC 60947-5-2:2021

DIN EN IEC 60947-5-2:2021

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt gemäß den Bestimmungen der Richtlinien und durch Einhaltung der Normen soweit es im Rahmen des Lieferumfanges möglich ist.

The Essential Health and Safety Requirements are assured by compliance with the directive and observance of the normative documents, as far as the scope of delivery allows.

Osterburken, 20. Juni 2022

Osterburken, June 20th 2022



Wolfgang Hageleit

Diese Erklärung darf nur unverändert
weiterverbreitet werden.

This declaration is only allowed to
hand out in unchanged form.



EU-Konformitätserklärung EU-Declaration of Conformity

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Tel. 06291 64400 Fax 06291 9846

erklären hiermit, dass die Geräte:

declare that the devices:

Schlauch- und Rohr-Kupplungen der Typenreihen:

Hose and pipe couplings of type series:

K... (MOLOScore, MOLOSconnect, MOLOSwitch, MOLOSlock)
aus Aluminum, Edelstahl oder Messing

K... (MOLOScore, MOLOSconnect, MOLOSwitch, MOLOSlock)
made of aluminum, stainless steel or brass

DN 32 bis DN 100

DN 32 to DN 100

auf die sich diese Erklärung bezieht, den folgenden Normen
oder normativen Dokumenten entsprechen:

to which this declaration relates is in accordance with
the following standards or other normative documents:

Richtlinie 2014/68/EU (Druckgeräte-Richtlinie)

Directive 2014/68/EU (Directive Pressure Equipment)

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt gemäß den Bestimmungen der Richtlinie.

The Essential Health and Safety Requirements are assured by compliance with the directive.

Einstufung:
Druckhaltendes Ausrüstungsteil

Categorization:
Pressure-maintaining components

Mediumeigenschaft nach Artikel 13:
Gruppe 1 - gefährlich

Fluid group acc. to art. 13:
Group 1 - dangerous

Mediumzustand:
gasförmig, flüssig oder staubhaltig, wenn pD >0,5 bar

Condition of fluid:
gaseous, liquid or dusty, if pD >0,5 bar

Angewendetes Konformitätsverfahren:
Modul A

Applied conformity assessment procedures:
Modul A

Diese Konformitätserklärung ist nur gültig in Verbindung mit den aktuellen Sicherheitshinweisen KE-SH- ..

The declaration of conformity is only valid in connection with our current safety instructions KE-SH- ..

Osterburken, 07. Januar 2019

Osterburken, January 7th 2019



Wolfgang Hageleit

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